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# Modelling indicative state level industry jobs estimates from the Labour Account

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**Source:** <u>Labour Account Australia, June 2022</u>

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## **Background**

In response to the demand for a state and territory dimension to the Australian Labour Account, this article presents indicative state and territory level industry estimates for the Labour Account jobs series.

The estimates produced have been modelled by applying proportional factors to existing balanced national-level Labour Accounts data. This is similar to the approach taken to produce indicative <u>Labour Account status in employment estimates</u> (/articles/status-employment-industry), which were published with the June quarter 2021 Labour Account

release.

Building a state and territory dimension directly into the compilation processes of the Labour Account is not yet feasible, given the limitations of existing data sources.

However, in the meantime, this proportionally allocated state-based Labour Account data provides useful insights into industries at the state and territory level, as it is based on the national level Labour Account industry information. The Labour Account provides the best ABS estimates of employment, jobs and hours worked by industry at the national level.

#### Method

The approach to proportionally allocate state and territory level industry estimates involves constraining the number of jobs to the national level industry totals of the Australian Labour Account. This means that the sum of all states and territories for a particular industry is equal to the Labour Account national estimate for that industry. As a result, the industry levels in each state are heavily impacted by the Labour Account balancing process which reconciles household and business-based estimates of filled jobs.

The filled jobs data in this article are based on the state or territory of usual residence, not the location of the job. More detail on the method used to derive these estimates is proved below.

# Method used to model state and territory industry jobs estimates

#### **Proportional allocation**

The state and territory industry level estimates were derived by applying proportional factors to the national level Labour Accounts data. These proportional factors were sourced from the Linked Employer-Employee Dataset (LEED), which is a key source used in compiling the quarterly Labour Account, and from Weekly Payroll Jobs and Wages (WPJW) data for the latest periods.

For the period September quarter 2011 to June quarter 2019, LEED estimates for filled and secondary jobs for each state and territory and industry subdivision were used to estimate main jobs by subtracting the estimates for secondary jobs from filled jobs.

From December quarter 2019 onwards, subdivision level estimates for main and secondary jobs were extrapolated using the growth rate from WPJW job estimates. This process excluded subdivision 76, where the corresponding quarter estimates from LEED were extended to the current quarter.

Due to a two-quarter gap between the available LEED data and the start of Weekly Payroll Jobs and Wages (WPJW) series, the September quarter 2019 and December quarter 2019 estimates were set equal to the corresponding quarter of the previous year (i.e. September quarter 2018 and December quarter 2018). This assumed that there was no change in industry distribution over the year.

The LEED subdivision estimates for main and secondary jobs were totalled to produce national estimates for each industry subdivision. The state and territory estimates were divided by this national total to produce state and territory proportions for each industry subdivision.

These proportions were applied to the balanced estimates from the Australian Labour Account to produce main and secondary job estimates for each state and territory by industry. Filled job estimates were produced by aggregating the main and secondary job estimates, and state totals were produced by summing subdivision level estimates. The state level vacant jobs estimates are derived by applying proportional factors to the Labour Account industry level vacant jobs estimates.

The data in this article are based, in part, on tax data supplied by the ATO to the ABS under the Taxation Administration Act 1953, which requires that such data is only used for the purpose of administering the Census and Statistics Act 1905. Any discussion of data limitations or weaknesses is in the context of using the data for statistical purposes, and is not related to the ability of the data to support the ATO's core operational requirements. Legislative requirements to ensure privacy and secrecy of this data have been adhered to. In accordance with the Census and Statistics Act 1905, results have been confidentialised to ensure that they are not likely to enable identification of a particular person or organisation.

#### Understanding differences between Labour Account and LFS state totals

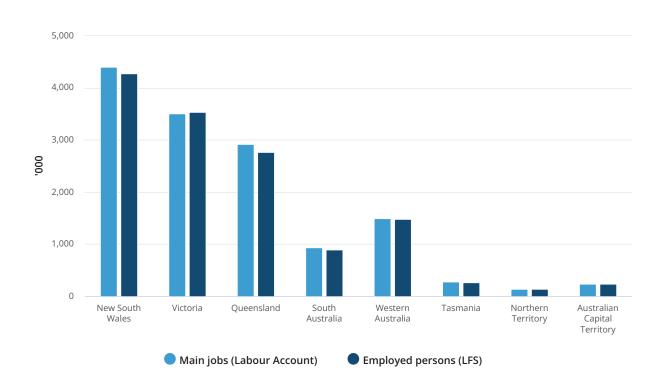
As the national level industry totals were proportionally allocated across the states and territories, rather than constrained to the state and territory employment levels from the LFS, this results in some inherent differences in the sum of all industries within a state or territory and the employment totals for that state or territory. This is something that could be addressed through a more sophisticated method if a greater degree of coherence were required.

The differences between LFS and Labour Account estimates of employed persons and main jobs across the states and territories suggests that the national-level differences between them are most prevalent in industries highly concentrated in these states. This effect is particularly seen in the employed persons differences for Victoria and Queensland. The national total for LFS employed persons will always be lower than the national total for the

Labour Account methods due to scope differences.

While the employed persons measure is conceptually equivalent to main jobs, the Labour Account estimate of main jobs includes the jobs worked by short-term non-residents, children, and defence force personnel, which are out of scope of the LFS estimates of employed persons.

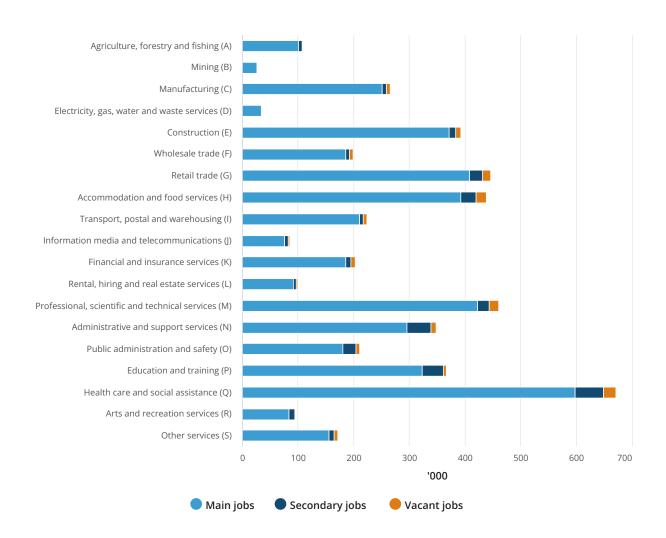
Main jobs and employed people, by state and territory, June quarter 2022



#### **New South Wales**

In New South Wales for the June quarter 2022, the total number of main jobs were 4.4 million, secondary jobs were 307,300 and job vacancies were 146,200.

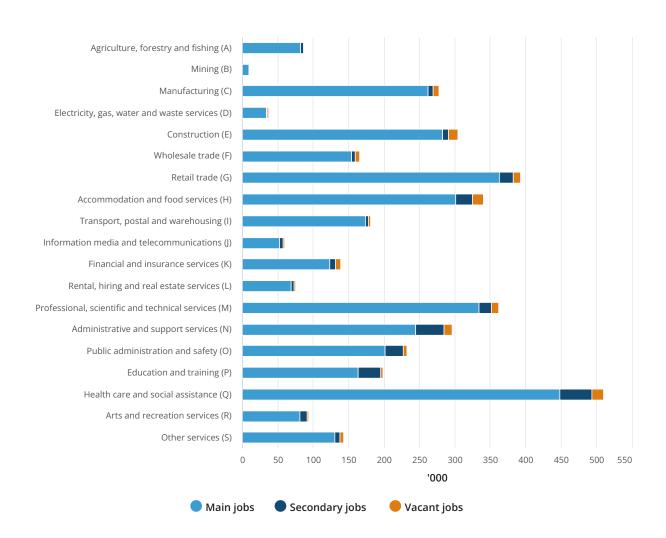
# New South Wales total jobs, by industry, June quarter 2022



#### Victoria

In Victoria for the June quarter 2022, the total number of main jobs were 3.5 million, secondary jobs were 272,400 and job vacancies were 120,800.

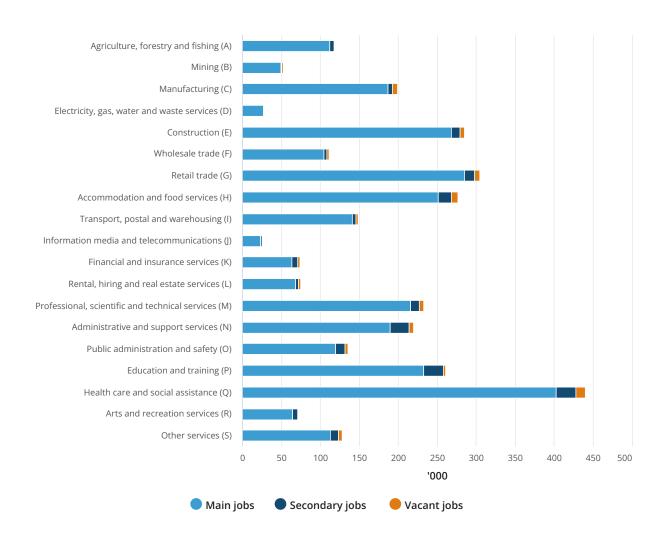
# Victoria total jobs, by industry, June quarter 2022



# Queensland

In Queensland for the June quarter 2022, the total number of main jobs were 2.9 million, secondary jobs were 192,400 and job vacancies were 79,200.

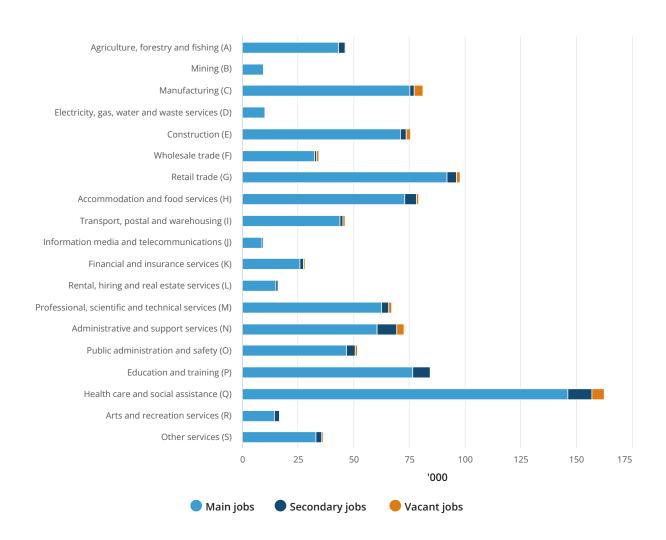
#### Queensland total jobs, by industry, June quarter 2022



#### South Australia

In South Australia for the June quarter 2022, the total number of main jobs were 939,300, secondary jobs were 63,200 and job vacancies were 24,700.

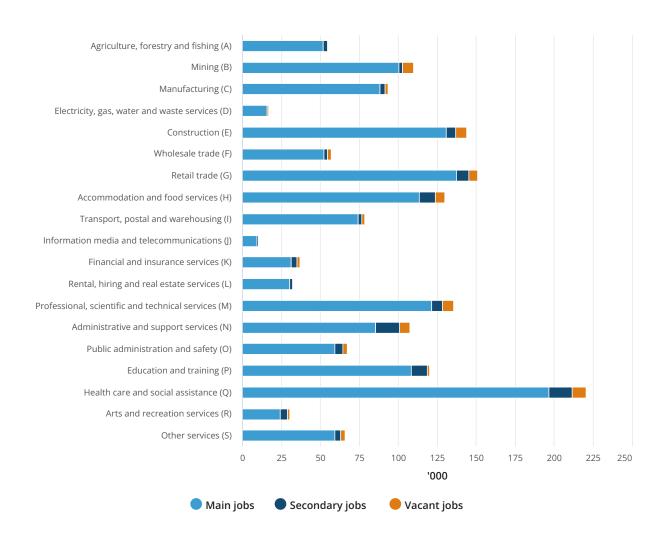
#### South Australia total jobs, by industry, June quarter 2022



#### Western Australia

In Western Australia for the June quarter 2022, the total number of main jobs were 1.5 million, secondary jobs were 104,800 and job vacancies were 65,800.

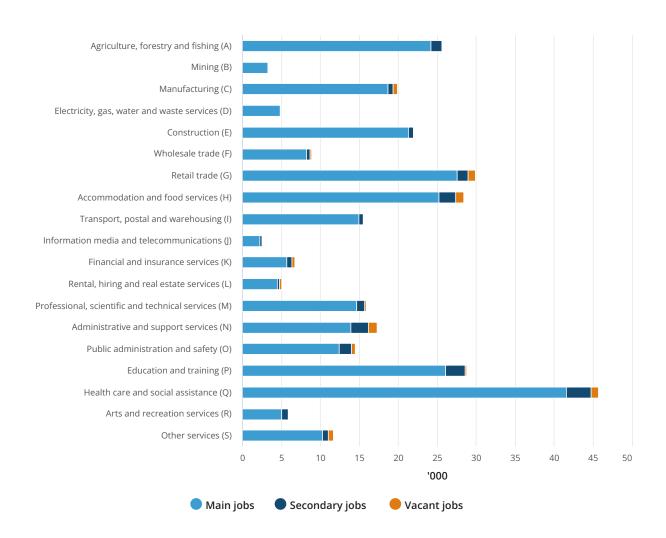
#### Western Australia total jobs, by industry, June quarter 2022



#### **Tasmania**

In Tasmania for the June quarter 2022, the total number of main jobs were 284,700, secondary jobs were 20,800 and job vacancies were 7,400.

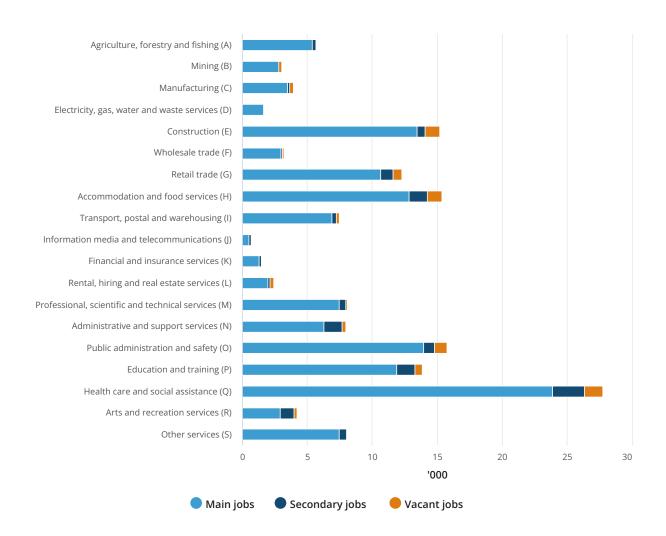
# Tasmania total jobs, by industry, June quarter 2022



# **Northern Territory**

In the Northern Territory for the June quarter 2022, the total number of main jobs were 137,700, secondary jobs were 12,700 and job vacancies were 7,600.

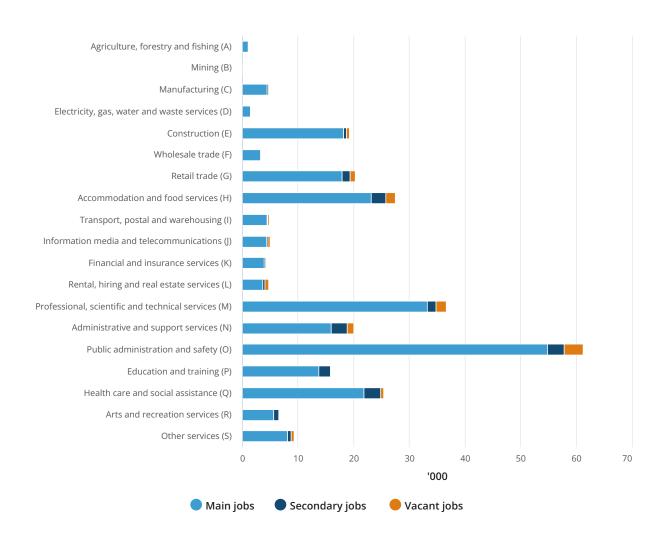
#### Northern Territory total jobs, by industry, June quarter 2022



# **Australian Capital Territory**

In the Australian Capital Territory for the June quarter 2022, the total number of main jobs were 239,500, secondary jobs were 20,200 and job vacancies were 12,500.

#### Australian Capital Territory total jobs, by industry, June quarter 2022



#### Data downloads

The following spreadsheet contains indicative estimates of filled jobs, main jobs, secondary jobs, and job vacancies by industry, for each state and territory, for the period September quarter 2011 to June quarter 2022.

#### 2022 (Pivot Table)

**<u>→</u>** Download XLSX [645.86 KB]

### **Further information**

For further information, or to provide feedback, please email <a href="mailto:labour.statistics@abs.gov.au">labour.statistics@abs.gov.au</a> (mailto:labour.statistics@abs.gov.au).